

H. Kinnear Esq.

AMATEUR RADIO



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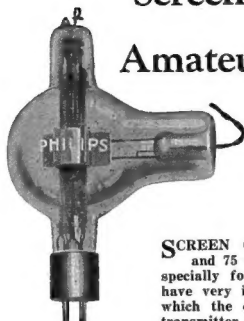
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Screen Grid Valves

For

Amateur Transmitters



Types:
QB2/75, QC05/15

SCREEN GRID Transmitting Valves for 15 and 75 watts have been designed by Philips specially for use by amateurs. These valves have very important properties, as a result of which the construction and adjustment of the transmitter can be greatly simplified. The control-grid and anode of these valves are screened from each other by a screen-grid, thus reducing anode-control grid capacity to a minimum. When used as H.F. amplifier or frequency multiplier in controlled transmitters there is practically no reaction of the anode circuit on the grid circuit, and self-oscillation is impossible with screening outside the valve. Neutralisation is unnecessary, so it is very easy to alter the wave-length at short notice. These screen-grid valves give greater amplification than triodes under the same conditions.

Table A shows the various electrical properties of the Philips amateur transmitting valves:—

CHARACTERISTICS:

Table A. Type.	Screen Grid Valves	
	QC 05/15.	QB 2/75
Filament Voltage	4.0	10.0
Filament current*	1	3.25
Saturation current*	400	2,000
Anode voltage	400-500	2,000
Screen grid voltage	75-125	300-500
Max. anode dissipation	15	75
Anode dissipation on test	20	100
Max. screen grid dissipation	3	15
Amplification factor*	225	200
Mutual conductance (slope)*	1.4	1.4
Int. resistance*	160,000	150,000
Anode-grid capacity001	.02
Max. diam. of bulb	50	100
Max length	160	210

*Approximate values.

PHILIPS

TRANSMITTING VALVES

Editorial



Off to the Convention

The Oxford dictionary gives the meaning of "Convention" as, an assembly of persons for some common object.

Obviously, then, the W.I.A. (Vic. Div.) Convention in October-November, the peak month of Melbourne's Centenary festivities, should be an assembly of Radio Amateurs with the common object in view of solidifying and enlarging that useful organisation, the Wireless Institute of Australia.

We shall speak lightly of the W.I.A., for have we not written much in these pages which has borne fruit, and is demonstrated in the Institute's steadily increasing membership.

Kipling once wrote "East is East and West is West, and never the 'twain shall meet." There is an exception to every rule or maxim ever written, and those who attend the Convention in November will have the opportunity of seeing how the other half of the world lives, and so disproving the maxim. In explanation of the analogy we would say that the Country Amateur can paint most vivid pictures of his problems to the City Amateur. On the contrary, what DX opportunities the country man has.

As hosts to our Country and Interstate Brothers in Radio, we can show them how we live socially, physically and "electrically." All three phases are embraced in our Centenary Convention programme.

Conventional Convention, as a title for this editorial, to some may at first savour of a touch of satire. On the contrary, we should not have a convention at all, unless it is conventional.

Conventional Convention

OR—

The programme already laid down has received careful thought; giving us all the opportunities of airing our views on the several subjects which will arise at various meetings scheduled; giving us all the chance to join in various forms of collective recreation, as well as giving us the opportunity of meeting our very good friends of the Radio Inspector's Branch, and not forgetting the use of the new suite of rooms recently taken over in Queen Street.

We know the Convention will be conventional and will follow traditional lines, with just that balance of camaraderie usually found in such a hamfest.

Just one year ago many of our readers will recollect the occasion of a dinner given by the City Hams to the Country Hams. At that time, "Amateur Radio," then without that symbolic name, was in its embryo stage. We hope that, at the forthcoming Convention, those present will voice the opinion that their gratefully received subscriptions to the magazine were justified. It is to be hoped that constructive criticism will be forthcoming from those present.

The first Australian world DX Contest will be finished when the Convention starts. What discussions! What "if . . . 's," what "I blew . . ." what "excuses"! Yes, the Convention will certainly be just as successful as it is conventional!

Wanted.—Artists and Short Story Writers, to brighten up our Mag. Fine opportunity for budding Hams with ability!

Two-wire Untuned Transmission Lines

(By courtesy of Westinghouse Electric and Manufacturing Co., through Alan S. Duke Pty. Ltd.)

The two-wire untuned transmission line, when properly constructed and matched with the antenna, will give the amateur a radiating system that causes very little interference in the immediate neighbourhood. With such a system, it is possible to operate a superheterodyne within twenty kilocycles of the transmitter frequency, even though the transmitter be of considerable power. This will allow duplex operation and even relaying of other stations.

Another feature of the untuned transmission line is its lack of standing waves. Therefore its losses are not as high when it is run near objects, as is the case with a feeder system which oscillates. Further, the untuned feeder line can be any length, theoretically, without affecting its operation. For these reasons the half-wave Hertz antenna, fed with an untuned transmission line, offers definite advantages if the physical layout of the radiating system will permit its use. These are offset to some extent by the fact that such a system is adapted for working only on the fundamental of the antenna, and cannot be used for even-harmonic radiation, thus preventing the use of a single antenna for operation on all amateur bands.

Much has been said about the two-wire, untuned transmission line, but little has been published concerning the construction and termination of the same. With this line, it is possible to feed an antenna located a considerable distance away from the transmitter and have line losses that compare favourably with power lines.

In the design and construction of an untuned R.F. transmission line, there are three important factors to consider: first, the impedance of the line; second, the coupling to the transmitter; third, and the most important, the coupling to the antenna. These three will be treated in the order mentioned.

Determination of Impedance.

The impedance of the line depends upon the dimensions. These are usually determined by the material the amateur has at hand; namely, the spacers, insulators, and wire. The length of the line does not enter into its characteristics.

The characteristic or surge impedance of a pair of parallel conductors which make up the transmission line, may be calculated from the following formula:

$$Z_0 = 276 \log_{10} \frac{2D}{d} \text{ ohms}$$

Where:

Z_0 = Characteristic or surge impedance.

D = Spacing in inches (centre of wire to centre of wire)

d = Diameter of conductor in inches

For the convenience of the amateur who is unfamiliar with logarithms or who does not care to calculate the impedance of the line he constructs, a chart providing quick determination of impedance of lines of almost any dimensions is given in Fig. 1. Corresponding B and S wire sizes are also shown. The method of determining the impedance of a line is as follows: Draw a straight line from the "d" scale, starting at a point corresponding with the wire size or diameter, to a point on the "D" scale, corresponding to the spacing. The point where this line intersects the "Z" scale will give the impedance. Example: A pair of No. 12 wires, spaced 6 inches, will have a surge impedance of approximately 600 ohms.

Construct the line with spacers that will give uniform spacing. Use glass, treated wood, porcelain or similar insulating material, but lighter materials are advisable to prevent vibration of the wires between spacers. Support the line so as to not change the spacing at the supports. Avoid sharp corners as they often cause reflection

at higher frequencies. At the higher frequencies—14 to 60 megacycles—make certain that the length of both conductors is the same. If it is necessary to increase or decrease the spacing of the line in order to couple to the antenna or tank coil, do this within the last two or three feet. The line should be supported so that it does not swing excessively with the wind. It is advisable to approach the antenna at an angle of not less than 45 degrees. Avoid nearby trees, wires or rainpouts, by at least three feet.

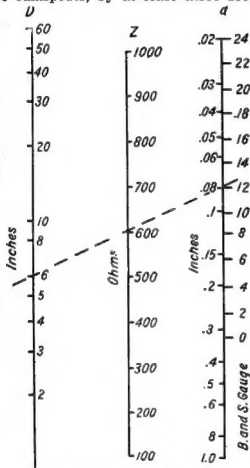


Fig. 1—Chart for determination of surge impedance

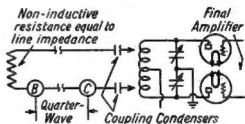
Coupling to the Transmitter.

While it is possible to effect a balanced coupling to a single side amplifier, the use of a push-pull final amplifier is recommended. Coupling is easily made by use of a pair of fixed condensers of equal capacity. For frequencies around 1.7 megacycles they should be from .001 to .01 mf., while for the higher bands, capacities ranging from .00025 to .001 will be sufficient. Their voltage rating should be such as to prevent failure and subsequent short-circuiting of the plate

supply, should the antenna or line become accidentally grounded.

If possible, construct the line or a section of the line one-quarter wave long. Across the end of the line away from the transmitter, place a non-inductive resistance having a value equal to the impedance of the line in ohms. This may be a carbon resistance rod, provided it is physically large enough to dissipate the power absorbed without heating. However, it is recommended that a carbon lamp or a combination of carbon lamps, having the proper resistance value, be used, or, if finances permit, a non-inductive resistance of the woven type. It is possible to construct a resistance by winding wire on a thin flat mica sheet, taking care to slightly space the turns. This provides a resistance having very little inductance, but if the frequency be high, its use is not recommended.

A small r.f. milliammeter, 0-100 mils full scale, should be placed in one side of the line next to the resistance load. Another instrument of the same type should be placed one quarter wave-length away in the same side of the line. See Fig. 2. Start moving the coupling clips away from the centre of the tank coil in opposite directions, taking care that the distances on each side of the centre are always the same. Carefully retune the tank condenser after each move.



At some point it will be found that the instrument B and C will read alike. Should they be inserted in any other position in the line, it would be found that the current distribution is uniform and the line is properly coupled to the transmitter. The power output may be calculated since it is the power dissipated by the resistance load. The efficiency of the final amplifier will be found to be highest with the coupling at this point. If this point is passed, the amplifier will run hot and the resonance point will not be sharp.

If physical limitations prevent the construction of a line one-quarter

wave long, or if the length of the completed feeder is to be less than one-quarter wave, it is possible to use the same method with a shorter line. Merely place one milliammeter next to the tank coil, and the other at the other end of the transmission line in the same wire, then make the adjustments as specified until both instruments read the same, indicating the absence of standing waves. The maximum difference in the instrument readings when standing waves are present are obtained when the instruments are spaced one-quarter wave apart. Therefore, when spaced less than this difference, care must be exercised to see that the readings are the same.

It is important where comparisons are made between two instruments, as in this case, that reliably accurate instruments be used. Inaccuracies in the instruments may permit improper adjustments which will result in radiation from the feeder, improper coupling to the antenna, incorrect antenna adjustments; in fact, throw the whole system out so that the efficiency of the radiating system is seriously impaired.

When the proper coupling has been determined, the line may be extended to the antenna, if necessary, and attention turned to the construction of the antenna and its coupling coil.

Coupling to Antenna.

It has often occurred to the amateur who has constructed the so-called "matched impedance," two-wire line and antenna, that if he were to take the straight portion of the antenna included between the feeders, and make a coil out of it, the system should still work. This is true except that allowances must be made, since the wires as a coil will have a higher inductance than when stretched out straight. The use of a coil offers the best solution of the antenna coupling problem because it can be readily changed to match a line of most any impedance. It is obvious that the portion of the antenna used for coupling, whether it be in the form of a coil or a straight wire, must offer an impedance equal to the characteristic impedance of the transmission line. The inductance of the coil required can be easily calculated from the formula:

$$Z = 2\pi FL$$

Z = Impedance in ohms

F = Frequency in cycles

L = Inductance in Henries

$\pi = 3.1416$

Example: A coil of 13.5 Microhenries has an impedance of 600 ohms at 7,150 K.C.

"QST" published in their December, 1928, issue, a chart for the calculation of inductance, based on a well-known formula. This chart takes into consideration the shape, size and turns in the coil and allows quick determination of the inductance of a coil from its dimensions, etc.

There are several calculating devices on the market which quickly determine the inductance of a coil, taking into consideration the shape, size, number of turns as well as the wire size.

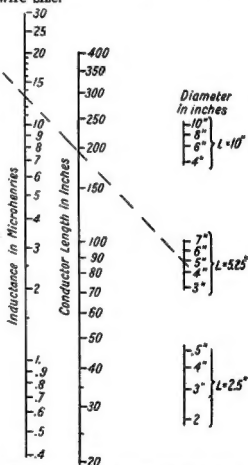


Fig. 3—Chart for determination of coupling coil details.

Since most amateurs make use of 1/4-inch copper tubing in constructing coils, a chart giving the inductance of coils of several different lengths at different diameters and the total conductor length is shown in Fig. 3. The lengths of the coils shown correspond closely to the spacings conveniently used in construction of transmission

lines, and allow the line to run direct to the ends of the coil without spreading the line.

Example: A coil constructed so as to have an axial length of 5.25 inches and an inductance of 13.5 microhenries, will be 5 inches in diameter and require 200 inches or 16.7 feet of $\frac{1}{4}$ -inch tubing. This means it will have approximately 13 turns and the spacing will be about 3-16 inch. In such case it would be better to increase the diameter say to 7 inches, in which case the conductor length would be about 210 inches and the coil would then consist of 9 turns spaced 3-8 inch.

The lengths of the radiating portions of the antenna need be only roughly determined since it is always necessary to make a few final adjustments. The easiest method is to make each part a length equal to 85 per cent. of one-fourth of the desired frequency-expressed in metres.

Example: 7,150 K.C. equals 42 metres or 137 feet. One-quarter of this is about 34 feet. Multiplied by 85 per cent. equals about 29 feet.

This method has proven satisfactory for antennas constructed in all the amateur bands since the variation is corrected in the final adjustment.

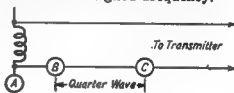
The antenna may be suspended horizontally between two supports, or attached to a vertical support, such as a pole. In either case, the centre of the antenna should be a half wave above ground for best efficiency. It is often advisable to place the antenna at a higher position above ground, in order to minimise screening effects such as nearby buildings or trees, but the antenna will work satisfactorily even though these precautions are not taken.

Procedure in Checking Design and Final Adjustments.

The desired adjustment of antenna coupling is the one that gives the maximum ratio of antenna current to transmission line current, with a uniform transmission current along the line. When this condition has been achieved, it will be possible to replace the antenna and its coupling coil with the load resistor, and no change in the operation or tuning of the final amplifier stage will be necessary when the change is completed. This is really the final check.

In order to obtain readings along the line and in the antenna, it is

necessary to insert an r.f. milliammeter in the antenna at some convenient point, usually adjacent to the coil. Low range milliammeters should also be placed in the transmission line, one next to the antenna and another one-quarter wave-length away (or as near one-quarter wave as possible), both in the same side of the line. See Fig. 4. It is not necessary to place indicators in both sides of the line, since the system is a balanced affair and all adjustments are made in duplicate, to each half of the antenna. If the methods of design have been followed closely, the antenna coupling will be quite close to the correct impedance match and the antenna tuning close to the designed frequency.



Two procedures are available to the amateur in checking the design and making the final adjustments.

The first consists of a purely cut and try method, done by maintaining the frequency constant and making slight changes in coupling and tuning, always trying for maximum A/B ratio (see Fig. 4) and uniform line currents.

The second method consists of changing the frequency and determining the point at which the system is operating. It is recommended since the required changes always became obvious. The changes should be made to each half of the antenna for correction of frequency and to one end of the coil for changes of coupling. Never make changes in tuning and changes in coupling at the same time. To do this will present the possibility of getting the system badly out of adjustment. Frequency runs should be made on the initial adjustment and after each adjustment, starting at a point well below the desired frequency in about 1 per cent. steps, until the operating point has been passed. Curves of ratios of indicators A/B should be plotted, and curves of the ratios of indicators B/C also should be plotted.

If the impedance of the antenna coupling is too high, the B/C curve will go below unity, indicating that

the coil should be shortened. Should the antenna tune at too high a frequency, as indicated by the A/B curve, it means that the length of the sides are too short. If it resonates at too low a frequency, the sides are too long. To correct this, divide the difference, as expressed in metres, by four, and add or subtract this length to each side of the antenna as may be required. Changes made in either coil length or antenna length will reflect slightly in the other, but this change immediately shows up on the plotted A/B or B/C curves, and can be readily corrected.

An example of the second method in tuning is best, given by showing a series of changes and the resulting readings.

An initial run was made on an antenna system designed for operation on 7,150 K.C. The best A/B ratio was found at 7,350 K.C., and the B/C ratio was only .4 at this point. The antenna obviously was tuned at too high a frequency and the coupling impedance too high. Each side of the antenna was lengthened the calculated amount and another frequency run made. This change brought the antenna very close to the desired frequency but did not improve the B/C ratio. The coupling coil was then shortened about two turns and another run made. This improved the B/C ratio, but decreased the A/B ratio and caused the antenna to tune at 7,300 K.C. The antenna was again lengthened by the calculated amount and another run made. This showed both an increase in A/B and B/C ratios and brought the frequency to the desired point. Since the B/C ratio was still below unity, it was decided to decrease the coupling, and this was done by cutting out one half turn. Another frequency run was made and it was found that the B/C ratio was almost unity but the frequency was still a little too high. The antenna was again lengthened by the calculated amount and another frequency run made. The B/C ratio was unity, the antenna tuned at the desired frequency, and the A/B ratio was as high as obtained during any of the runs. It was felt that since the impedance match was perfect, it was not advisable to proceed any farther. Upon replacing the antenna load with the equivalent load resistor, no changes were noted in either power input or tuning, which seemed to

prove that the final adjustment was about perfect.

In course of adjustments, there is often a temptation to readjust the coupling at the transmitter end from that made during the first adjustment. This is not advisable since, in the majority of cases, the final adjustment at the antenna will bring the operation of the final amplifier back to normal.

The instruments used in making the first adjustment of the transmission line coupling at the transmitter end are the same used in making the adjustments at the antenna end. It is advisable to use low power in making all adjustments. In course of adjustment, a bad impedance match may give extremely high transmission line currents and care should be taken to prevent damage to instruments. It is advisable to use an antenna ammeter having a full scale deflection at least five times that of the feeder milliammeters. Later, when a better impedance match is obtained, an instrument having a lower full scale deflection may be substituted in the antenna. Should the lines have a very low impedance, say 150 ohms, it will be found necessary to use an antenna indicator having about the same scale reading as those in the feeders. Use of such low impedance lines is not recommended except where necessary, such as when feeding an array of antennas.

A Super Regenerative Receiver for Reception of 10 Meter Continuous Wave Signals

By VK2SA.

A method is shown whereby the reception of C.W. signals as well as I.C.W. and Phone can be accomplished. The action of the receiver appears to be as follows:—

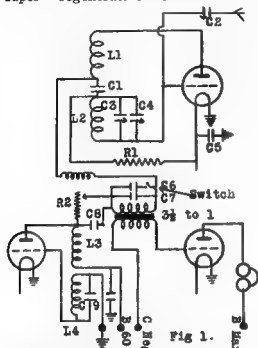
The amplitude of the low frequency oscillation generated by the quenching tube in relation to the amplitude of oscillation of the detector tube is such that the detector tube oscillation is not completely quenched on the negative half cycle, or in other words, during the period of positive resistance. Under these conditions C.W. reception is possible with greater amplification than is usual with the

circuits usually employed for reception on 10 metres.

The L.C. ratio of L2, C3, C4 play an important part in eliminating background mush when the set is in the condition for receiving C.W.

In order to place the receiver in a super regenerative condition for

- C1.—.001 mfd.
- L1.—3 turns 1½ in. diameter.
- L2.—3 turns 1½ in. diameter.
- L3.—1,400 turns.
- L4.—900 turns.
- R1.—2 meg.
- R2.—50,000 ohm.
- RFC.—60 turns on ½ in. former.



phone reception, condenser C6 is inserted in parallel with C7 by means of switch SW. This reduces the reactance offered to the low frequency oscillation. Tuning of C.W. signals is not critical and reaction control remarkably smooth.

All tests have been carried out with VK2YC on C.W. Owing to the absence of VK2 Ten Metre phone and I.C.W., all tests were made on 11.3 metres, which is the 4th harmonic of a Sydney commercial station using I.C.W.

The idea may be of interest to those who already possess a 5 metre super regenerative receiver and are desirous of working on the 10 metre band.

CIRCUIT CONSTANTS.

- C1.—.00025 mfd.
- C2.—3 plate midget.
- C3.—7 plate Wetless (Tuning).
- C4.—9 plate Wetless (Band Spread).
- C5.—.002 mfd.
- C6.—.02 mfd.
- C7.—.002 mfd.
- C8.—.5 mfd.
- C9.—.002 mfd.
- C10.—1 mfd.

Annual Convention.

The Annual Convention of the Wireless Institute of Australia is to be held in Melbourne from October 29th. to November 3, 1934, and it is expected that quite a number of Interstate visitors will be present. To ascertain the exact number who will be present, any member desirous of being in Melbourne for the Convention is requested to communicate with the Secretary of the Division of which he is a member, stating whether he will be requiring accommodation. With a view to lightening the expenses of the visitors, some of the members in VK3 are prepared to arrange to accommodate one or two of the visitors at their own homes.

The Centenary celebrations will be in progress at the time of the Convention, and it should be an opportune time for members of other Divisions to be present.

The Organising Committee has arranged an attractive programme of entertainment for the visitors and is as follows:—

October 29: Visit to Research Laboratory of the Postmaster-General's Department.

October 30: Combined Meeting of all Sections, at which the members will be officially welcomed and introduced.

October 31: Convention Dinner.

November 3: Smoke Night.

November 4: Picnic and Cricket Match at Fiskville, Beam Centre of A.W.A. at Ballan.

The evenings of November 1 and 2 are open for the visitors to make a tour of inspection to the members' shacks, should they so desire.

B.E.R.U. Notes.

From VS6AQ, via VK3EG.

Conditions here on 14 M.C. very bad, only VU stations being heard, but only on 7 M.C. Plenty of VK 2, 3, 5 can be heard and QSO round 1400 G.M.T., although static is rather bad.

Federal Headquarters Notes

Fisk Trophy Competition.

There seems to be a certain amount of misunderstanding about the Fisk Trophy Competition, possibly because when the rules were published in the November "Amateur Radio," the circulation was not so great.

A little over a year ago Mr. E. T. Fisk, of A.W.A., generously donated a fine trophy to the Federal Executive, to be competed for by the State Divisions of the Wireless Institute of Australia. It was decided to arrange five contests having intervals of about six months, and a set of rules were made to govern the competition. Up to the present two contests have been held, and the third, which will probably take place during December, is being decided. The rules of the competition permit the trophy to travel from State to State as the various States win a contest, and a system of points for an aggregate to decide the outright winner upon the conclusion of the fifth contest.

It must be clearly understood that the Trophy is not for competition among individuals, but between the State Divisions. Each contest arranged sets out how the various State Teams are decided, and these are made to give the State of small numerical strength an equal chance as those more fortunate.

Each State Division Council has been requested to provide prizes for the leading competitor among its own members, to create individual rivalry and interest.

If each council does this, it will make extra keenness among its own members, which is likely to make that State a winning one and bring the Trophy to the Club-rooms. So far two contests have been held, the first a 5-point relay, won by Victoria, and the second a QRP contest won by Queensland. The full results of the Competition are given with the results of the QRP Contest last month.

You will notice a photograph of the Trophy on this page—would you like

to see it in your divisional meeting room? Yes—well get into the next contest and put your State on top. The rules of the next contest will appear in these pages shortly, so get ready to take part as soon as you read them, and put your station on the air for the duration of the contest.

State Divisional Councils are asked to organise, give their members all the help possible, and what is very important, provide prizes for good performances among its members.



The Fisk Trophy

The third leg of the Fisk Trophy Competition will be a six-point relay contest to take place between December 15-23, 1934. Watch for rules and information in November issue. GET YOUR GEAR READY!

Don't post QSL cards with insufficient postage. It is rather annoying to the recipient.

Personalities in Radio



G. F. PALMER

Who Owns and Controls

**3AK MELBOURNE
7UV ULVERSTONE**

*Two Important B Class Stations. Noted for
their High Grade Entertainment and Offering
Exceptional Facilities for Advertising*

[Adv.]

Operating and Experimental Section

Conducted by VK3WY.

Last month we asked for logs, to enable us to give some account of DX conditions. The response has not been overwhelming, but sufficient data has been sent in to let us give some idea of the conditions pertaining to VK3. Unfortunately, no data is available for other States.

Maybe you are rather diffident of sending in a comparatively small log, or perhaps you have not got the time to write one out carefully. This need not worry you, however, as the information is all we worry about, and we don't mind if it comes in small doses or large doses.

CONDITIONS IN VKs.

14 M.C.—Europeans have started to come through on this band from about 23.00 to 01.00. So far, the easiest contacts seem to be the U.S.S.R. and other Eastern European countries. As our correspondent remarks, this certainly seems FB in view of the contest ahead.

7 M.C.—Early morning DX on this band seems to be definitely improving and a number of Europeans and a few North Africans have been worked. In the early evenings (from 17.00 to 21.00), KA, AC, OM, K6, 7, VPI, 4 and 5, W and VE have been worked and later (from 22.00 to 02.00), VS6, 7, 8, VU, PK, J, W and VE seem to be the best DX.

It would appear that DX generally is just looking up at the right time, and with a bit of luck we should see some hefty scores next month.

OPERATING

Good operating plays a very vital part in our amateur radio, but, unfortunately, it is one of those things which any of us are apt to gradually slip away from without quite realising it. To have examples of both good and "punk" operating brought before our notice occasionally should help to rectify this condition—hence the article which follows:—

PUNK OPERATORS—AND HOW TO BECOME ONE.

Necessary qualifications are that you must: Send decidedly more than three CQ's and only sign once after the 56th.

Answer a CQ-VKs call if you live in VKs, or a CQ-Europe called by a Yank or Zler. It doesn't matter—it is all the same to him who answers.

Call CQ at least five times faster than you can read. It shows that you can at least send. Better still, send CQ very carefully and then your call as fast as you can—nobody wants to know what it is, anyway.

Make sure that the other chap knows that you received him OK by sending R R R R R R INT INT INT solid. It is far better than just sending "R," which means "Everything received."

When he is too fast for you, don't forget to tell him that he was under heavy QRM, or started to QSB all of a sudden. It is better than admitting that you can't read him at all.

Send at 15 w.p.m. with the bug set at 45 w.p.m.

Never twist the dial after finishing up a QSO. The lad who has been sitting on you can write.

Surely somebody else can add to this list. Are YOU self-conscious, old son?

Conducted by VK3JJ.

INTERNATIONAL 28 M.C. CONTEST.

The Radio Society of Great Britain has sponsored a world-wide contest to be held over a period of twelve months, and open to all Amateurs. The winner will be awarded the R.S.G.B. International 28 M.C. Contest Trophy, which will be held in perpetuity, and Special Certificates will be issued by the R.S.G. to the first ten stations in the final list.

Contest Rules.

1. The Contest is open to all licensed radio amateurs.

2. The Contest will commence at 00.01 G.M.T., October 1, 1934, and will conclude at 24.00 G.M.T., September 30, 1935.

3. Licensed power must not be exceeded.

4. Contacts may be established at any hour and on any day during the contest period.

5. One point will be scored for each completed 100 miles of contact with a specific station (e.g., contact with a station 99 miles away scores no points, contact with a station 658 miles away scores 6 points). All distances will be measured by a Great Circle line between stations.

6. A minimum signal strength of QSA 3 must be recorded before a contact counts for points.

7. In computing his final score a competitor may claim points for each different station worked once during each calendar month.

8. Proof of contact in writing may be required by the Contest Committee.

9. The decision of the President of the R.S.G.B. will be final in all cases of dispute.

10. Entries must reach the Secretary, R.S.G.B., 53 Victoria Street, London, S.W.1, not later than November 15, 1935.

Now here is a test which should attract the attention of every ham in Australia with an active interest in Ten Metres.

To create interest and induce competition, "Amateur Radio" will publish the points claimed each month, so

Thank you!

for your enquiries about

WESTINGHOUSE RADIO INSTRUMENTS

We apologise for not being able to immediately satisfy all requests for copies of the HAM PUBLICATIONS issued by our Principals. Only small supplies are available at present. When further booklets are to hand they will be distributed strictly according to priority of receipt of request.

Write for yours now!

WESTINGHOUSE METAL RECTIFIERS AND WESTECTORS

A very interesting and instructive pamphlet about Westectors is available for the asking.
Write for your copy to Victorian Factory Representatives:—

ALAN S. DUKE Pty. Ltd.

486 Bourke Street, Melbourne, C1

Telephone: Central 1255 [2 lines]

send your score, together with any notes or news, to your Divisional Representative before the 15th of the month following. If a representative has not yet been appointed, forward them to the writer.

How many times will YOUR call top this list?

VICTORIAN NOTES.

Activity has increased on the 28 M.C. band, and many local contacts have been made during the past month, but no Interstate signals have yet been heard.

Although 3NM is still unsatisfied with his output, he is putting out a fine signal and is usually the first to start up. He is using three stages, with a tri-tet 59 C.O., RV218 buffer and an 800 in the final, but is building a separate self excited transmitter to compare the output.

3DM is having trouble getting his receiver adjusted to this band, while a bad hum on the higher frequencies is claiming the attention of 3DP.

3BQ has heard most of the locals at good strength on his super-het., but has not yet had time to tune the transmitter down, owing to Reserve skeds which keep him busy on Sunday mornings. 3YO, who had difficulty locating the band, has not yet been heard.

In the outer suburbs, 3RJ and 3HK have had several QSO's, but although their signals are R4/5, 3OF and 3JJ, who are located close to the City, have been unable to raise them. Half wave 7 M.C. antennas worked on the harmonics are used by the latter two, while 3RJ and 3HK are using half wave for 28 M.C.. so it is possible that their aeriels are giving strong low angle radiation, requiring less bending for good signals locally. Some experimental work is needed in this direction, and an antenna system certain to produce strong local signals will be welcome. (See future articles in "A.R."—Ed.) 3RJ is using an ultra-audion circuit with about 19 watts input to a 210, but manages to get a steadier and cleaner signal than most of the hams who have tried it.

A five metre field day during the Convention week has been suggested, and it is hoped that the 56 M.C. gang will get to work on those portables and trans-eivers within the next few weeks.—VK3JJ.

Divisional Notes

VK3 Key Section Notes.

ZO—VK3BJ.

At the section's meeting on September 4, we again had a good muster of the gang. It was regretted that, owing to an alteration in the shifts of telegraph operators, 3RJ was forced to resign from the office of chairman, as he would be unable in future to be present at meetings before 9 p.m. A comparatively new member, Mr. Cook (80X), was elected as his successor, and we wish him every success in this capacity. A new member, 4FK, now one of the staff at the P.M.G. Research Laboratories, in Melbourne, was welcomed, and it is to be hoped, will shortly be on the air with a VK3 call-sign.

During the course of the October meeting a debate will be held. The subject will be: Should newly licensed amateurs be confined to a certain frequency band for a certain period of probation, with the object of reducing QRM? 3ML, 3BQ and 3PX will be for, and 3RJ, RVW and 3JO against.

A word of thanks is due to the secretary of the Phone Section, 3JB, for the splendid framed photo of two old-time hams' stations (one is G2NM), which he has kindly presented to the Institute.

Conditions on the 40 metre band are improving gradually, as Yanks are fairly easy to raise after sunset, and a few VE's, KA's, K6's, etc., are coming through at good strength. VE5JC was QSA5 R6 on my punk re-eiver even. In the mornings a few Euro peans and East Coast Yanks manage to struggle here, but are hard to raise—no doubt due to the heavy QRM over there. When they are contacted, the reports given by them are usually fairly good. It is pleasing to note the absence of the Russian Commercials from this band. Apparently they have at last decided to abide by the International Regulations. Hi!

Energetic VK3's heard in the mornings are: 3EG, 3BW, 3JQ, 3CW, 3ZF, 3KX, 3LN, 3XQ, 3LQ, and 3DM.

4EI has had quite a good time lately raising ZS, ZT, ZE, etc., and has given them reports of R6 and R7 when they are not even audible down

here. Must therefore move to VIB one of these days, hi!

My apologies are due to "Bulldog" 3XQ for the mistake in last month's notes. What should have been put was that he was on the air at 6 nearly every morning, but could not raise anything.

3FY is building a MOPA for short-wave work—45 osc. and 46 p.a., and expects to be on the air with it shortly.

3XJ is still building his first transmitter and is experimenting with grid modulation.

3WQ just manages to get on the air occasionally to get PDC reports from a 45 in a TPTG.

3ZJ is rebuilding to MOPA—45 osc., 45 p.a., with Heising modulation.

3DT experimenting with B-K oscillators on ultra-high frequencies. How about some dope on this, Val?

3JJ still rebuilding to Xtal in his spare time.

3OB is using a new Xtal rig—59 osc., 46 doubler and 2-210's in push-pull final. He tried a tri-tet, but did not have any success with it. Will have another try later on.

3YO is vainly trying to find ten metres. Guess you are very greedy, wanting ten om.

3WG is too busy with W.I.A. work to find much time for experimenting. However, he is managing to find time to get some 5 and 10 metre gear together for the forthcoming tests.

3KO very QRL but just able to spare time to continue rebuilding—should be on again very soon.

3FJ is also very QRL swotting for exams and does not get much time to go on the air these days.

3LN tried 40 metre phone for the first time in six months the other day and worked 3WC, but did not get much of a go owing to QRM from 3OB and 3BJ, hi!

3PX (ex-TJX) installing gear at new QRA in St. Kilda and also rebuilding for the contest.

3MR is going all out for the 852 trophy. Now has 102 ft. mast with full-wave 7 M.C. Zepp. hitched thereto. Has just completed rebuilding for tests and, by means of switches, can change from 40 to 20 in about ten seconds.

3DP comes from the place where all good hams come from—he certainly knows his bacon (he is Hutton's chief electrical engineer).

CORRESPONDENCE.

Regarding the N.Z.A.R.T., for whom I am representative in VK, I would like you to publish the following in "Amateur Radio." The subscription rate is 7/6 for 12 months, or 3/9 for 6 months. This includes the official organ, "Break-In," for period of subscription. Anyone requiring further particulars may communicate direct to Hon. Secretary, P.O. Box 277, Auckland, C.I., New Zealand, or myself. The N.Z.A.R.T. have now under revision 1934 official N.Z.A.R.T. Radio Call Book, containing complete list of all New Zealand and Australian Amateur Transmitters, together with other useful data for the amateur. When completed, it will be sold at approximately 2/-.—H. W. BLUE (VK2YI).

NORTH EASTERN NOTES.

ZO—3EG.

Conditions on 7 M.C. have greatly improved over the last month again and many DX sigs. are coming through well. Although contact with Europe is difficult as yet, the Japs after 10 p.m. are easily QSO and there are plenty of them available. An odd PK shows up also at this time and other Asiatics, especially VSU and VU, about midnight. South Americans are being heard well here and HCIFG, XPDC on 7020 K.C., is often a good R7 about 5 p.m. Early morning Europeans are very strong, but, as yet, only a few have been worked, and these about 7 a.m., the majority as yet appear to be working local DX and the QRM there is pretty terrific. WGBTI reports hearing VK5SU, VK3KX and VK3EG at 21.00 G.M.T., so it should not be long before the Europeans are FB again. F3AL was worked here at 7.15 o'clock one morning and there seems to be very little possibility any earlier in the a.m. as yet.

Regarding Yanks, they come through wonderfully now and there seems to be a peak at 5 p.m. to 7 p.m. and again between 10 and 11 p.m.

The locals fade early in the night and day conditions have been most unsatisfactory indeed. VK2VQ has a wallop here, also 2OH, 2HF are amongst the strongest. VK4RM comes in all hours of day and night and works plenty Yanks by the sound of him.

5FG has a nice sig., and seems to share the DX with 5LB and 5BC, who both make a noise here. There seems to be greatly increased activity in the West, no fewer than a dozen of VK6 heard here during the week. VK6SA, VK6FO very consistent and several Yanks called you both the other night, but N.D. Too bad!

Had a visit from the gang, 20J, 2YI, 2DQ and 3NY the other day. They arrived after all the hard work in putting up a new mast for 70 ft. vertical Zepp. was done, but they weren't in at the kill when some local live stock got in and got mixed up with the guy wires.

As I finish these notes I find that Europe can be QSO from 2 a.m. here, having had a two-hour QSO with G2QO, also worked G6OS and G6UF the same night, so conditions seem on the mend.

VK20J has rebuilt and now on more regularly with side-note.

Have been trying out different directional systems here. Anyone got any dope? Tons of room, but no dope on beam systems

WESTERN DISTRICT NOTES. 80W—3HG.

The 3500 k.c. band is still being used a good deal, particularly by fone stations. Conditions on 7000 k.c. are, however, improving rapidly, and a number of the boys are moving down there to chase the DX, which is coming through well, particularly the Europeans, in the afternoons.

3HG also heard one of those rare birds, a South American, a few days ago, but did not get a chance to call him.

80W spent a few days with the Warrnambool gang recently. 3XI and 3JA have been getting their rigs on the air again, with a view to taking part in the Centenary contest. 3XI tried out a pair of 50-watters in the final stage, but was not satisfied with the radiation, so decided to re-build the 4-stage rig, the only CQ from which had landed a Yank. 3JA has a RV258 waiting to be tried out. 3PG has been putting in some excellent DX work on 40 mx, with his 3 watts. 3HG still going strong with fone on 80 mx. 80W is installing an ML dynamotor, which is expected to arrive from England in a week or so.

3NZ very consistent on Reserve skeds; 3CG also coming along well with Reserve work.

3NY is at present in Coleraine, and 5KL is reported to be taking up work there also, so the ham population in the district will now be six, for a short time at any rate.

3JE still busy with the BCLs, and does some 200 mx. work on Sundays.

The Centenary contest promises to be a huge success, and if a few South Americans show up there will probably be a big run on W.A.C. certificates.

NORTH SUBURBAN. Radio Club 3FY.

At the half-yearly meeting of the above club the following officers were elected for the ensuing six months: President, Mr. H. Goldberg; vice-president, Mr. G. Dowd; hon. secretary, Mr. W. Wonder; assistant hon. secretary, Mr. A. J. O'Brien. The Executive Committee consists of Messrs. Goldberg, Dowd, Wonder, O'Brien, Gleeson, Richardson and Smith; the Technical Committee, Messrs. O'Brien, Dowd, Richardson and Gleeson; Librarian, Mr. J. Corcoran; Q.S.L. officer, Mr. R. Richardson; delegate to fone section of W.I.A., Mr. W. L. Wonder; delegate to key section of W.I.A., Mr. R. Richardson; programme director, Mr. A. Stow.

The meetings of the club are held every second Monday at the club-rooms, 354 Rathdown Street, North Carlton, and the meetings for October will be held on the 1st, 15th and 29th. Interesting lectures have been arranged, and all interested in experimental radio are invited to attend.

At the time of writing, members are visiting several "B" Class stations, and it is hoped that in the near future arrangements can be made for further visits to some of our prominent amateur stations.

To aid the club's funds, a house party was held at the secretary's residence on a recent Saturday evening. Members rolled up "en masse," and the most outstanding item of the evening was the supper consumed by our good friends Bob Richardson and John Masson. Both ate 9½ sandwiches, 27 sausage rolls—hot and piping—1½ dozen cream cakes, and three bunches of spring onions. The lubrication was by "Marchant's," and, as a dessert, Vegetable Laxative Pills were thoroughly enjoyed. The party left well after midnight, and, much to the writer's surprise, several of the "gang" were heard over the air at 8 a.m. through the broadcast transmitter mike.

A 3-stage crystal-controlled transmitter was recently constructed for the 200 metre band, and at the present time a new short-wave transmitter is under construction by members at the club-rooms.

Full particulars regarding club activities will be supplied by the hon. secretary, Wm. L. Wonder, who, owing to matrimonial disturbances, now sleeps out at 248 Raglan Street, Preston, N.18.

SHORT WAVE SECTION. 20—VK8XJ.

During the month of September a general improvement in the attendance at the meetings has been noticed. The Section now has an active membership of twenty members, but there is still room for more members.

The popularity of the visits of inspection arranged by the Section is shown by the number of members of other Sections attending.

By the time these notes are published a visit will have been paid to the Central Telegraph Office of the Postmaster-General's Department.

At each Section meeting a member reads a paper on a subject of interest to the Section, and at its conclusion a general discussion is entered into, whereby the knowledge of the members is materially benefited. It is from this Section that the step towards obtaining an A.O.P. Certificate is taken, and a great amount of the necessary ground work is obtained by these discussions. I urge that

the members or intending members to the A.O.P.C. Class make every endeavor to attend these meetings and join in the discussions and visits. The address at our next meeting, to be held on October 10, will be delivered by Mr. Quick.

At the meeting held on September 12, 1934, the Section Representative to Council, Mr. Mildern, placed a suggestion from Council regarding the presentation of photos and other articles of historical value by members to the Institute. VK3JB, of the 'Phone Section, has presented suitably inscribed and framed photos of G2OD and G2NM following upon the lead set by VK3WG some months ago. This Section is investigating the question of framing graphs of observations taken by the Section on European short-wave stations during 1928.

Mr. Mildern also reported upon the programme of entertainment being provided for the Annual Convention to be held in October, 1934. The members showed that they were wholeheartedly behind the programme, and this Section should be well represented at all the functions.

VK3 Phone Section.

There was a fair attendance at the Phone Section meeting on August 28, at which the following transmitting members were present:—3CB, 3DH, 3UI, 3SB, 3HF, 3BH, 3KE, 3LU, 3HK, 3YJ, 3PA, 3RO, 3RI, 3FY, 3OY, 3GK, 3LM, 3OV, 3CR, 3LN, 3JR, 3XJ, 3LD, 3GY, Allocation Committee members, Mr. J. Kerley and Mr. G. Lahiff.

During the meeting an appeal was made in aid of the Australian Inland Missions. The amount of 13/- was raised, and the following members agreed to attend the meeting on behalf of the Section: 3XJ, 3HF, 3JB and Mr. Herley.

The usual amount of business was handled during the meeting, including a letter from "Radio Program." After the allocations had been given out, the chairman began to distribute the crystals put into the "pool."

Personalities.

3CB has been putting over a few turns in the form of sketches, one notable one being "The Return of Tomkins."

3PA intends improving his antenna system. The transmitter, after two years' constant service, still uses Class "B" audio, and he intends to stick to it. If anybody wants to know how Class "B" goes, have a listen to P.A.

3FY are still working on their new transmitter, which is a CO, buffer and P.A. job.

3BW intends to be QRO very shortly.

3DH is still recording on aluminium and shall be heard working simultaneously on 265 metres and 5 metres.

3HF is rebuilding at present.

3BY occasionally has a woman announcer now and is putting over fine stuff, as usual.

3SB gives the BCL's at Oakleigh a fine "background."

3GK makes Sunday lunch sessions lively.

3BH has been trying out new microphones.

3JB uses crystal pickups and crystal microphones, and is getting good reports from new QRA at Brighton.

THE PHONE CONTEST.

(By Observer.)

Now that the first stage of the phone contest is over, a few remarks on the competitors should not be out of place.

The first station was 3DH, whose transmission was badly interfered with by 2HD. Ivor, however, put over a good performance, and as he had shifted his QRA only a week previously, put up a fine effort.

3AM followed, and with a nicely balanced programme, kept to that high standard one expects from Arthur, although the high notes of his recordings were lacking. Speech was excellent.

3GZ Geelong was disappointing. Frequency modulation appeared to be the trouble. Mike strength was considerably below that of his recordings, and a YL announcer did not improve matters. A bad hum was noticeable when the mike was switched in.

3JB was heterodyned by 5RP and that plus QRN made him hard to follow, there was also a tendency to overdo the bass notes.

3LU's strong sigs. were easily readable three bad QRN. Bass notes were lacking below 130 cycles, modulation was deep, but there was no trace of over-modulation. Carrier wave and speech were good.

3SB was very weak and on account of QRM and QRN was not understandable.

3RI's sigs. were almost as loud as 3LU's. 3LU, by the way, was, with the exception of 3BY, the strongest of all the competitors. RI's bass notes were inclined to be weak, whilst the higher frequencies were definitely lacking. Speech was perfect. Programme was well chosen and there

was no trace of over-modulation.

3JR, slightly stronger than RI. Bass notes good with a tendency to resonate at about 90 cycles. Upper register on recordings slightly worse than 3RI. A bad fault was harmonic distortion, which was considerable. Speech was harsh, caused by an even greater degree of harmonic distortion, and it was also over-modulated.

3HK, strength about that of RI. Frequency response fairly level from about 100 cycles to 3500 cycles, with sharp cut off at either end, slight harmonic distortion, mike good.

3CB was decidedly weak, about equal to 3SB. It was extremely hard to identify the station. Speech was below the strength of records, and a YL announcer did not help things.

3BY, the strongest station on the air. Frequency response level from about 200 to 3500 cycles, below 200 cycles there was a gradual falling off. Upper register was outstanding, giving a perfect naturalness of reproduction. Piano record reproduced with excellent fidelity. Speech was excellent with perhaps a slight hissing of sibilants (hi, George). There was a decided hum in the carrier.

3LN about equal to 3DH in strength. QRM and QRN affected reception, quality fair, although bass was overdone. Speech good.

3BW Portarlinton showed a point or two to the other country stations and some of the city ones. Strength slightly more than 3DH. Frequency response level from about 90 to 3000 cycles, above which there was a sharp cut off. Speech excellent, carrier o.k.

3TM, strength equal to 3RI, fair quality, bass overdone, higher notes of records lacking. Slight distortion in speech.

3KW's effort was on a par with GZ. Frequency modulation and bad hum in carrier were the main faults. Speech was very mushy and very much below the strength of recordings.

3HF, strength about equal to 3JR, but mike strength considerably lower than records. Speech over-modulated, bass very heavy, sharp cut off above 3500 cycles.

3OY, strength equal to DH. Speech very thick and blurred (sounds bad OV). Bass overdone, high notes good. At the beginning of the programme, the mike was louder than the recordings, but about halfway through it

dropped to the same level as the records.

3BT equal to RI in strength. There was a decided click when the mike was faded in and out. Frequency response level from about 100 to 3000 cycles. Away was noticeable above 3000 cycles.

3PA strength as JR. Good performance generally, slight harmonic distortion, mike slightly weaker than records. Carrier o.k.

3ZO was over-modulated. Speech strength below recordings, decided too deep to follow easily, mike lack of high notes.

3KE, strength same as RI, frequency response level from 150 to 3000 cycles, sharp cut off above 3000 cycles, slight distortion, and speech excellent.

3XL, bass overdone, speech clear, slight hum in mike.

3RG Castlemain was only slightly better than the two Geelong stations. His recordings were fair, but speech was badly distorted and hard to understand. Over-modulation seemed to be the trouble.

3FY, strength equal to RI. Frequency response level from 150 to 3000 cycles, with a rise on the top end and a decided falling away at the bottom. Speech good, but below strength of records, slight harmonic distortion, and carrier was a bit wobbly.

3BH, slightly weaker than RI. Speech good, higher frequencies on recordings lacking.

3KG, strength almost equal to 3LU, speech clear and transmission generally, on a par with 3RI.

3YJ, strength a bit lower than RI, bass slightly overdone, with higher frequencies weak. Speech excellent, with slight background.

I failed to hear 3WF, owing to a breakdown in my power supply.

By courtesy of "The Bulletin" (N.S.W.) we republish the following from its issue 18/7/34.

"The 'talent' of a 20-year-old clerk in England who 'secretly worked a wireless transmitting set for 12 months' was effusively praised by magistrates and solicitors. No talent is called for in putting together a contraption to spread radio impulses in surrounding receivers. Textbooks exist by the thousand, and in 1934 any schoolboy can follow diagrams. To excuse piracy on the grounds of 'talent' is grossly unfair to licensed radio experimenters."

SOUTH AUSTRALIAN VK5 NOTES

By Eric Halliday.

The transmitters' section meeting this month took the form of a lecture by Harry Wheeler, M.Sc., VK5HW, on antennas and antenna feed systems. Interesting data on untuned feed systems was given to the large crowd of hams present. (What about some articles.—Our Ed.)

At the September general meeting on September 12, Colonel Viney gave a lecture on "The Landing at Gallipoli," which was appreciated by all present.

5MY turned himself into a personality announcer over 5RP on 200 m. the other Sunday. 5SU still finds time to entertain BCLs on 200 m. on Sunday. Is trying a Class 5 final amplifier in the perk. Malcolm is still the live wire behind the R.A.A.F.W.R. in VK5. 5RT has now struck a balance between married life and radio.

5NR now has a new QRA at 11 Ninth Avenue, St. Peters. Bill is the latest of the local crowd to have caught the 200 m. fever. 5MV and Bill have burnt the midnight oil quite a lot lately building the 4-stage c.c. rig with p.p. final. 5LD is back on 40 m. again working plenty of Ws. 5WP is at last going to relegate his famous old T.P.T.Q. perk with the 210s. Although Bill has worked neaps and heaps of DX with his old rig, he thinks that his new single sig rx deserves a better brother. The new rig will be a self-contained job in a frame about 6 ft. high.

5JA has started to build a 7-tube single sig. It looks as if nearly all the active hams here will have these fx rx before long. 5GR has been working plenty of DX on 20 m. 5MV's mopa has been lying idle while he has been helping 5NR build his 200 m. rig.

5BR, the Blackwood Radio Club, has been doing quite a lot of good work with 80 m. 'phone. Regular skeys with the 2, 3 and 7s are being kept. Rig in use is 45 c.o., 46 buffer, with p.p. 46 in final. High level Western Electric grid modulation is used in conjunction with a 2-stage speech amplifier and a condenser mike. The serial is a Marconi with universal coupling. One of the 40 m. sticks recently busted, but the story concerning it would fill half a dozen issues of "A.R."

5RX is still playing with his tritet with 210 in final. The bias is causing all the trouble now. 5JO had a spell from radio recently when he was laid up with influenza.

5GC is still working DX. Recently clicked with VPIAM. Another new country a.m.? 5LG is still chasing YLs in the Western districts of VKs. So, o.m., what about giving radio the break it deserves. 5MZ got a surprise at the last meeting of the Institute when he received a card made of copper from a W.

The stork recently brought 5BY a second op. Congratulations, Dougal, from all the local boys, and we hope that you will bring him up to be as good an op. as you are. 5LB has an R max plus T9 sig on the 7 m.c. band. Ought not to have any trouble in working DX with that sig. o.m., but the bumps are at times bad. 5KB is another with a nice hefty sig and had bumps on 40 m.

5WB has been putting out a nice fone from a rig which consists of a 59 tritet oscillator and p.p. 210's modulated by p.p. 2A3 in Class A.

5MH and 5MK often have rag chews on 40 m. fone on Sunday. Both fones are fb. 5MK's rig is a super QRP outfit, using about

a fraction of a watt. Other 40 m. fones heard are 5ZC, 5VW, 5KC, 5PK, 5MZ, 5ZY and 5AR. The last-named is making himself unpopular with some of the chaps through coming on at night during DX hours and playing records. There are not many BCL's on 40 m., o.m.!

5RF now has a 210 going in a Hartley to the tune of 875 volts on its plate. Poor tube! Colin says that he is satisfied now, as he can burn up a pencil off the tank coil. 5QR—"The kidbeater from the bush"—was in the city during the school vacation for a high-power holiday after being QRP on batteries for months. 5RF, 5RT, 5WR and the writer managed to spare a couple of nights to show him round the city. Hi! Hi! Rig has taken a low-power 80 m. perk back with him to his new QRA at Jakub. Is thinking of selling his mo-bike and acquiring a motor generator. Two other visitors to the city the other week were BERS 195 (Eric Trebilcock), of Moonta, and 5FG, of Balaklava. Although Eric is VK's champion receiver, he is not going to sleep on his laurels. He is still as keen as a razor on dragging in DX.

The call VK5FBX has been allotted to and will be used by VK5PK and VK5FB during a caravan tour they will be making, commencing from Wilmington on September 29, and travelling via Mildura (September 30), Wagga (October 1), Canberra (October 2), Sydney (October 3 to about October 12), visiting Newcastle before leaving Sydney on October 12 for Melbourne, via coast road; arriving in Melbourne on October 18, and staying until October 24; visiting Ballarat and Geelong about October 21; then making a fast trip home via Mt. Gambier and Adelaide. We will use 'phone and c.w. on 40 and 80 mx., using Ever Ready B bats. for power supply.

WESTERN AUSTRALIAN VK6 NOTES

By VK6CP.

Since last issue not much activity has been shown by VK6 hams. The meetings have been only moderately attended, and it seems that nothing short of a plug of dynamite will wake up some of our gang. At the last general meeting 6JS came forward to give the boys a very fine talk on the latest in all wave superhet. JS handled his subject in a masterly fashion, and by means of graphs, etc., explained everything very fully. A hearty vote of thanks concluded the evening.

Ten-metre and five-metre work is in the offing, but not much will be done until after the Centenary contests.

The AOPC classes are in full swing, and as the President, 6BN, has this matter well in hand its success is assured. All the same, boys, we must all do our bit.

DOINGS ON THE BANDS.

Just at present conditions seem to be betwixt and between, with the 80 mx going out and 40 trying hard to sneak in.

QRN on 80 is troublesome, and 40 is useless between the hours of 7 p.m. and 9 p.m., with occasional bright spots before and after those times.

Only QRO stations are getting anywhere, while the humble 15-watt input tries vainly for a QSO.

On Sunday mornings at one time many moons ago VK6 was a hive of industry, but now, alas, one might hear one station on the air.

We can be heard in the early daylight hours, and PKs, KAs in the early evenings, all on 40, with the usual bunch of Eastern Staters.

On 80 on a recent Sunday evening 6-fone stations got going in a circle, but, taken all round, the results were poor. 6RA and FH were consistent, but of the others not much need be said.

Boiled down, the activities are as follow: 6RA on 80 with fone. 6FO on 40 in two places looking for contacts. 6PC forsaken the 80, and vainly calling CQ on 40. 6CP of Meekatharra, and 6FM of Wiluna, trying to click on Sundays: also 6XL somewhere in the Mulga doing his stuff. 6RW heard once on 80 with fone that was only a shadow of his one-time fb goods. Heard a station calling for 6GS one night, but George was not located on the receiver here. Let's hope you are perking, o.m.! 6FL convalescent again, and threatens big things. Frank is now QRA at Albany. 6KB having trouble with his Zepp, and threatens to sell up, but I don't think so! 6DH heard occasionally on 40 trying to QSO VK6 in daylight. Of the rest, little can be said, and boys, when you decide to do some punching I might be able to write you up. Until then our space will be very small, as not being a commercial editor I have not the gift for telling fairy tales.

6FL reports having got all his gear rigged OK, also that 6OR is in trouble with his Delco Jenny. A hefty GSO on fone between 6FL and 6CP on Sunday, September 9th, on 40, when FL signals were QSA6, R4 on Two Tubes and CP signals R. Max at one time. FL reports plenty of Dx after midnight at Albany. By the way, I would like to state here, that some of the Eastern Staters who are trying fone on 40 on Sundays with rotten RAC and ripply carriers should take a pull as your carriers take up about a third of the band in VK6, with no sign of decent speech on them, also those S.E. birds with jigsaw notes would do well to stop blooping all over the band. Don't know how your brother hams hear anything at all.

NORTHERN VK7 NOTES By VK7LZ.

Since there seems to be very little known of the activities of the Northern VK7 hams, we propose, at the invitation of our Secretary, to furnish the gang with a few details each month.

First we mention 7BQ, the only active "old timer" up North; BQ has been making improvements to his 200 mx. gear, and his fone is of fb quality.

7JW reports having rebuilt his a.w. transmitter, using link coupling, and is experimenting with directional aerials; would like to hear some of the VII gang on 80 mx.

7RC has been heard putting out fb fone of late.

7CP is temporarily inactive, but expects to resume operations and Reserve work shortly.

7LZ has erected a 60-ft. stick; is looking for DX on 40 mx.; is also doing Reserve work on 80 mx.

No reports to hand of 7CK, or the others of the Coast gang, but hope to have something to report next month from them.

TASMANIA VK7 NOTES

The September meeting of this division of W.I.A. was conducted in the club-rooms, 97 Collins Street, on the night of Tuesday, the 4th inst.

General business was handled, and five new members put through their enrolment, and two others passed for Council's approval, making seven for the month—very fb.

There were not many of the old familiar faces to be seen this month(?). We hope the bug still lives, lads, and will bight hard enough to bring you to "scratch" next month!

A lecture on "Audio Amplifiers," touching resistance v. transformer coupling, the advantages of triode over penthode, and theory and calculations of values for quality reproduction, was given by VK7BJ, one of VII's latest aspirants to the ham fraternity, and was much appreciated. A hearty vote of thanks was handed the lecturer.

These lectures and talks are looked forward to, each month, and other members are invited to brush up on their favorite subject, and let us hear about it. "Whose turn next? and don't all speak at once!"

Among the new members we have our youngest in Laurie Bailey, only twelve years old, and an enthusiastic youngster, too. Stick to it, Laurie, and see if you can be the youngest Tasmanian to get the A.O.C.P.

Our technical adviser—7RB—is at present in VIM on a business trip: or is it pleasure, Rhudolph? Anyway, good luck, o.m., even if we do chance to lose another VK7. We missed your cheery countenance at the meeting, by the way, 7WI, and the "Cent" o.m. How about it?

7BJ has forsaken the old TNT for a xtal rig, and is certainly getting a fb sig. Seems an improvement on old rig. 7KV, our latest member, welcome o.m.; manages to work a few Yanks between times.

7JB's xtal still perks with its usual ringing note, and he also lands a W or two to keep his fist in. He has just finished a new rig for the "Cent" contest.

About that 90-footer, J.B.—not a dream, surely! 7JH has just put the final touches to a three-stage rig, using 59 tritet C.O. 46 buffer-doubler with PP210s in P. amp. He is now waiting on a xtal to do the preliminaries.

TNC seems to have taken a vacation from ham radio; better perk up that tritet and bug again, Neville, and stage a comeback for the contest.

Have not heard 7AR yet; what's the hold-up, Carl; voltage regulation or has the wrist gone stiff?

7PA has not got the Election cpd, version of the 59 rig to perk up to expectation yet, but still has hopes, hi!

The Tuesday night gatherings each week have been pretty satisfactory for a start; so much so, in fact, that a code practice and elementary radio class has started for all who desire to make use of it. So here's your chance, chaps, if you want to improve for the A.O.C.P. Never too soon to start, and it is free for the taking, so roll up to the rooms any Tuesday night, and bring your 'phones just in case there are none to spare.

In a resolution passed at the monthly meeting, it was resolved that field days be left until after the Centenary contest owing to the preparations, one way and another, occupying the spare time of most of us.

Association of Radio Amateurs

(R.S.W.)

20-2HZ.

The amateur exhibit at the Men's Hobbies' Exhibition in aid of the Blind Industrial Institute, went off fairly successfully, although a lot more gear was expected for showing, and, taking the wireless portion all round, it compared well with many of the other sections, and created quite a large amount of interest amongst the visitors.

During the week-end, November 9, 10 and 11, it has been decided by the A.R.A. to hold a hamfest in the shape of a camp. The selected location is at Mona Vale, some 15 odd miles north of Sydney along the coast. The A.R.A. is desirous of having as many country hams as possible down for its week-end, in order to make a really representative hamfest for N.S.W. Already some country chaps have promised to come along, and they will be assured of a good time. Bring along your wireless gear and a blanket, a pair of shorts, and a shirt, swimming costume and a couple of bottles, and if you do not have a good time, well, it will be your own fault. Keep November 9, 10 and 11 clear and roll along in good style. For final arrangements and booking, please get in touch with R. H. W. Power, Wembly House, 841 George Street, Sydney, Secretary of the A.R.A., 'phone MA 2877; or VK2HZ, W. Moore, Esq., 348 Miller Street, North Sydney, 'phone X 1471. The cost will be under 10/- for the week-end, exclusive of fares, which should cost about 3/- return from Sydney. Everyone interested in Ham Radio is invited.

The monthly meeting of Association of Radio Amateurs was held at the Y.M.C.A. on September 26. Some 40 members were present, and VP1AM, 2FV and 2KR were elected as new members. 2KB, that well-known ham from Newcastle, was also present, and welcomed. Alan is at the moment located in Sydney, looking after the interests of his "B" Class station. Quite a little time was spent in discussing the idea of the aforementioned Hamfest and other alternate suggestions. After the general business was concluded, VK2HZ spoke on "Directional Effects of the General Run of Ham Antennas." The lecture for next meeting is left in the capable hands of Jack Pinell, VK2ZR; the subject is at present not selected.

The A.R.A. express their deepest sympathy to Zone Officer 2FI in his recent sad bereavement and loss of his father.

20-3YC.

After almost daily activity in August, the beginning of September finds almost dead silence on the ten-metre band over here. For some unknown reason the request for activity from VK3 on this band has had a bad effect on us. 2SA is moving his QRA: 2XY has just done likewise; 2TO is on a month's vacation; done likewise; 2TV is on a month's vacation; 2ZI is working night shift and sleeping daytime; 2YC is QRL "shop," late home each night and working Sundays, while 2BX hasn't a start on yet. But we still have one lone representative, for 2LZ has returned to ten again after four years' absence, and has been on Sunday and 7-9 a.m. Mondays—phone and a.w. A couple more weeks or less will see us all on again, but for the moment "sleeping" best describes "Ten" in New South Wales, and if sleeping describes ten metres, DEAD is quite apt for five. HI.

However, when this appears in print the VK2's will, no doubt, be back again on ten, and please remember we listen and transmit at the hours and half-hours, 10 p.m. is the popular time during the week.

WESTERN SUBURBS WHISPERINGS.

20-VK2MY.

2PK.—After much rambling about, has at last settled at Haberfield with a three-stage Xtal rig, using 47-45-59. Gets BCL reports from 2L for 1250 K.C. transmission. NB Joys. HI.

2FO.—Trying out some new ideas in 56 M.C. antennas. Do they work at all, Tom? Also trying out new MOPA 46 and 46, but the oscillator seems to wander on its own.

2DW.—Finds that putting a new rectifier in the power supply makes quite a difference. Working his share of DX.

2PT.—The possessor of a FB shack that would make many a Yank squirm with envy; works more than his share of DX.

2NP.—Another convert to the Phone Fiends, uses single choke Heising on a MOPA wid 46 as PA.

QRA?—The Pirate gang are sure becoming a pest around this district. The latest stunt is to borrow an Interstate call. Heard one calling CQ the other night with clicks about twice as loud as a rotten rag qrl, and signing a well-known VK5's call-sign.

2NH.—Bursting with ideas for a new rig, but, alas, too QRL with a R-9 YL.

2GR.—Has sure been having a bad spin. First his Junior Op's very sick, and now Alec has to go under an operation. We all hope that everything will be OK, Alec.

2WZ.—Not heard on very often. Has probably one of the most famous Rx's in the ham game. Believe it was used for receiving the first W sigs. Ses it still does its stuff.

2OV.—Ex VK4FC, getting out solid with a MOPA 46 Osc. on 2 46 in parallel: The Pa appears to persist in wandering away from his Osc., however. Chain it up, OB.

2MY.—New rig appears to be perking alright at last, but having some trouble still with grid heating in the PA.

7.—The best two stories go to the Phone Gang this month. Heard one of our gang pass the following remarks on to a staggered ham who he was QSO with, "Sorry OM. Afraid I didn't listen to that over was talking here if you care to repeat it," etc. HI, hi. The other came to light in the early hours of the morning. A VQ4 to a VU2: "Yes, CM, ur phone QSA 3 R2 QSB bad and QRM very bad here from mains supply, but you come through nicely." HI, hi.

VK2CT.—Heard calling CQ with a ripply DC note, but it sure sounded more like CX here—22/8/34. OM.

200.—Heard on with some nice phone, but appears to have a pretty hefty feedback in the mike.

2FD.—Had misfortune to do in one of his power supplies. Now installing a bridge rectifier with 83's.

Visitors VK5FB and 5PK will shortly be on their way to VK2, per caravan, per Mildura, Wagga, Canberra to Sydney, and thence to Newcastle. The Newcastle Gang have promised to take care of them up there, so we can be assured they will enjoy their stay.

Ryde.—Still no notes of the doings of the 13cc Cam. Wd appreciate any sent along to me, please MY.

GETTING STARTED ON TEN METRES.

By Jim (2YC).

VK3JJ has asked me for a couple of points

about the above. I'm not quite sure if he wants to know "how to do it" or "how it is usually done." Uncle James will give all his readers (if any) a couple of remarks about the latter.

The last chap I heard "getting started on ten metres," and he's one of many, did it like this. He had an B3 plus sig of varying tones and he sent dit dit dit dah dit, dit dit dit dah, some tantalising dah dit dah, and all the various varieties of testing calls for just three-quarters of an hour, and then closed with never even a piece of his call. 2YC, who had been listening and waiting all this time, said "Oh deary me" several times, had a long QSO with him and sent him several suitably inscribed QSL's. As our American cousins say—Oh yeah!

Running the above species of "starter" on ten metres very close is the chap who, with several of his friends, listens on his receiver and wonders why he doesn't hear some QRM. Just imagine the QSO's on 7 M.C. if everybody "just listened."

NORTH SHORE ZONE.

ZO—2DR.

2AE at Wahroonga has been experimenting with aerials and has decided on a doublet for transmitting during the Centenary Contest. Dave has decided to abandon the super-het rx idea, and is building a TRF job. 2HY is having trouble with BCL's. Just heard that 2LZ's young brother climbed to the top of 2HZ's 60 ft. two by two mast!! What a man! You could make a wonderful cat burglar out of him, Con. (hi). 2VG has been elected on to the Committee of the A.R.A. Congrats., Rex, OM. 2VQ has bought out 2TB, so Jim should feature largely in the impending contest.

2XC has obliged with the following Moon-man notes:—

Condx on 40 mx have been patchy and the seasonal change in DX condx is becoming apparent. Europeans are coming through fairly well in the early morning between 5 and 7 a.m.—also a few East Coast Ws. VK3EG seems to be very successful with this early a.m. Dx, and reports hearing W1, W2, W3, and W9 up to 10 a.m. one Sunday morning (hi). However, his location is ideal for both receiving and transmitting. Europeans also break through on 40 in the afternoons, but are not very strong now, and are usually blotted out by the Yanks, who start coming in about 4 p.m. A noticeable thing with the W's is the number who are using about 1K.W.—W6GRL, W6QD, W6CD, W6ARA, W6EXQ are just a few, but I give the palm to W9PZ, who, when I QSO'd him was using 2 k.w.!! He has 7 transmitters, and his QSL card is a little booklet! He asks VK's to look out for his 3.5 m.c. fone using 1 k.w. W6GRL reports condx for VKs and ZLs have been poor for August, but are improving.

The afternoon DX on 20 mx has faded out, only a few weak W fones being heard about 1 p.m. to 3 p.m. However 2LZ manages to QSO any that can be heard. However, European DX is starting to break through on 14 mc. at night now, and quite a few locals are migrating down there. 2HY and 2XU are the most successful so far. As to the local gang: 2FM is still about the most active, although 2XC was on fairly often during the Uni. vac. Alex (2FM) has added a p.p. 210's stage driven by a 210 buffer. His input is questionable and he certainly gets out with it—especially over to my QRA (hi). Alex is grinding a new xtal for about 7000 k.c., as

he wants to QSY to 14 mc. 2XC is also thinking of joining him on 14 mc. as the 7 mc Q&M is getting rather impossible. We both suffer from some bad continually tuning his xmitter from one end of the band to the other, and sending thousands of V's (hi). 2HI has been ok with BCL QRM, very hard luck on Fied, as he was putting out a nice sig. on 40. 2RV gets on occasionally, but there is much room for improvement in his sig. W6GRL comes from a p.p. s.f.f.t.c. using 210s. He was near on loop tone but the QRI is too rough for decent fone. Old 2UG has surprised us by being on quite frequently now. He still puts out his high class fone and occasionally uses a S.E. rig for CW. 2XG heard on rare occasions, but expect he will be on 20 mx. more often when the DX is coming through. I hear that 2NE has got his ticket back and is on again. That's F's Max OM. 2TB has given up ham radio for good in favour of canoeing. He has sold everything so won't stage a comeback! Jim of 2VQ has brought his rig, which is a 4 stage xtal with a 50 watt in the final. Jim is rebuilding and will be on again with xtal and QRU and what-o for the DX! 2HZ has a new receiver, yes again! using only 2 tubes, 77 and 87, but it is certainly the goods this time. He has been trying out 10 mx. Perhaps he is after the 10 metre DX contest! Look out Jim (2YC). Bill's a formidable opponent on your 10 mx territory! 2HZ is building quite a reputation for arranging (or disarranging) A.R.A. field days. His last effort was wonderful, and much appreciated by one or two that "we know of," so long—7.3. —DON (2DR),

ZONE 5A.R.A.

ZO—2BP.

Zone 5 notes are very brief this month, as I have been too busy to "get on the air" much. Brief observations show that conditions appear to be a little more settled on all bands but 20 m. With the decided change in weather conditions, the usual number of strong American fone and CW stations heard during the afternoons have become almost insubstantial. DX on 40 m. is still rather scarce, but a number of Europeans and Americans have been heard during the last few mornings, though no attempt has been made to QSO. 815 m. this year has not shown any great consistency as it did during the winter of 1933. Some nights have brought outstanding results, whilst others have brought forth much gnashing of teeth. No doubt these variable conditions have been caused to an extent by prevalent weather.

2NS has now some very fb gear—freq. m., 100 kc. oscillator have a proud place in the shack; both are as accurate as the most critical mind could wish for. Trevor is also working on a new transmitter which will soon be putting a healthy T9 sig. into various parts of the globe. Our old friend 2BJ's fone station gets bigger and better and now appears to be taking on the shape of a "B" Class outfit. Judging by the strength of the sig. 2BJ makes very good use of his "limited" power. 2MX at Dubbo has been consistently on 230 mx. and has built up quite a circle of ZL BCL's. His sigs. are invariably two or three points louder here than any o. the more local ones, and there are only 12 watts tickling the plate of his final. 2BR has been QRL talkie work, and 'tis said that Eric spends some of his time at a certain YL's "shack," and him a member of the "woman haters" club!

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ZONE 6 NOTES.

At last we have some news of the Dubbo gang. There are two Hams there, 2BM and 2MX, and until recently they used to work exclusively on the B.C. band. Eventually 2EM succeeded in getting his rig going on 80 metres. 2MX is still trying to get a receiver going on the short waves. Also news of a new Ham in Wagga. 2BW is using 47 C.O. 59. suppressor grid modulated driving a pair of 46 tubes Class B. The ant. is temporary, but hopes to have a better one soon. 2LM is still using a pair of 59's suppressor grid modulated, and swears by them. 2QA also using 59's suppressor grid modulated and swears at them. As usual 2NM has been rebuilding, contemplates more changes soon. 2WH is using a tri-tet 24A. Thinks it's the berries. 2RS heard on every Sunday working the ZL gang. 2NS is back after a hectic time broadcasting politicians blab. via the public address amplifiers.

In conclusion, I would like to take exception to a lot of statements by VK4US regarding antennas. In the first place, he says the ham usually erects an antenna and leaves it, being too lazy to work out another system. That may apply in VK4 where (we are led to believe) the climate is rather trying, but it certainly does not apply to VK2 or VK3, where the majority of the hams are always trying out new radiation systems, and, despite all the new systems which look so well in theory, the old Zepp which 4US so sweepingly condemns still seems to be favorite. All types, including single-wire matched impedance, double-wire ditto, current fed herts, Marconi, single-wire herts without feeders, half-wave and full-wave doublets. Also tried out a system half a mile long and 35 feet high here at 2QA. They all left us, unimpressed, and at the present moment we are using the much despised (vide 4US) half-wave herts with Zepp feeders. To quote another case, 2LM went to a lot of trouble to erect a "theoretically" perfect doublet. Using it in conjunction with a switching arrangement from his old Zepp so as to be able to select either antenna at will, he gave the better percentage of reports in favor of the Zepp. So I think it will take more than a few figures on paper to persuade the majority of hams to depart from the old Zepp, which has undoubtedly proven itself. (There should be some technical copy here, o.m.s.—Ed.)

ZONE 7 NOTES.

2O—2FI.

General conditions in this part of the State show an improvement to what we have been experiencing lately. On 80 metres several Yanks have been heard at very good strength. DX on 40 mx also seems to be looking up. 2YW has been heard on 80 mx fone with a YL on the mike.

2GY has been holidaying at Austinmer for the past few weeks. 2SF, the local ham, didn't know he was there until he was put wise over the air. 2TM heard occasionally on 80 mx. 2XF is active again, mostly on Reserve skeds. 2FI, QRL and not on much.

Would appreciate more dope on your doings, boys, so shoot it along.

ZONE 8 NOTES.

2O—VK2OJ.

3EG, with a few energetic BCL's from the valley, tried to erect a 70 ft. mast, but when erect discovered that only 55 ft. of 2 x 2 re-

mained skywards. HI. However, providing no severe wind storms so that way, he is confident that it will stand the strain until after the contest. HI.

Jim 2NY was with us for the week-end, and 2YI demonstrated to him just how to add those few extra dots when bug pounding. O, yeah! Jim will, no doubt, become a member of NZART soon; anyway, Harry thinks so. 2YI applied 500 v. to his 48, then closed his eyes until it recovered from the shock, but appears to like it, and R8 reports are there. Note is a bit T6 at present.

Forty mx has shown a decided improvement during the past week here, but 80 mx a bit troubled with QRN. Nothing of note heard on 20 metres so far.

2QE has improved his note and chirp is now absent fb. Mostly QRL (vy) at 20J. A 210 in the p.a. is handling 100 watts or so without a blush, and looks like standing it for some time. 2YI is always glad to enrol new members for the NZART.

Victorian QSL Bureau.

R. E. Jones (VK3RJ), QSL Manager.

Cards are on hand at the above Bureau, 23 Landale Street, Box Hill, Victoria, for the undermentioned stations. A stamped envelope will ensure the prompt despatch of these cards. VK3AT, AY, BF, CL, CW, DQ, ES, ET, FC, FM, GC, GY, GU, HT, IT, JE, JG, JK, JN, JL, JR, JX, JZ, KO, KQ, LG, LP, LT, NG, NR, NW, OP, OY, OZ, PW, PZ, QZ, RQ, RW, TD, WC, WD, WQ, WX, XK, XL, XP, YR, ZC, ZK, ZO, ZX. Numbers of the above cards will be returned to the senders if not claimed during October.

VK3GE finds conditions in Queensland a little different to Hobart.

Writer would be glad of any information likely to help him tracking down the pirate using VK3RJ on the Broadcast Band. VK3RJ has never been on that band yet, nor does he contemplate using this band. ZL broadcast listeners please note.


VK2's on 28 M.C. are 2BX, 2SA, 2ZI, 2LZ, 2HZ. Most of these stations call on the hour or half-hour and are frequently on around 10 p.m. to 10.30 p.m. and at 7.30 a.m. any day.

VK3OF and 3JJ report hearing 3HK and 3RJ on 28 M.C. during the morning of September 9th. Neither 3HK nor 3RJ could hear 3OF or 3JJ on September 16th.

VP1ZZ is our old friend John D. Olle, late VK2OZ, and his present QRA is Radio Station Labasa, via Viti Levu. VK3YR claims the first VK3 contact.

Can anyone supply the QRA of VS8AJ? This QRA urgently required.

R.A.A.F. Wireless Reserve Notes



VMB

Total No. of Messages **292**

Average per Station **41.71**



VMB2

Total No. of Messages **169**

Average per Station **42.35**



2A2

Total No. of Messages **116**

Federal Notes by the C.O.

During the month activities at H.Q. were temporarily suspended on account of reconstruction schemes at I.A.I. However, this only applied to practical Federal operations and the usual "office" work went on.

Several items for the betterment of the Reserve are being considered at the present moment, including the organisation of a chain of stations throughout the Commonwealth for nightly contact, in such a manner that all Districts will be interconnected at least once every 24 hours. The publication of Part II. of the Signal Training Manual is well under way and should be dispatched shortly. This will complete the provisional manual and the new additional procedure will add to the interest created by Part I. to date. Then again, steps are being taken to hold qualifying examinations for the grade of "instructor" in the Reserve procedure. As many members have been in the Reserve for some time now, it is only right that we should find out the exact standard of each man, so that, with the advent of new members, the District Commanders will be greatly aided by having fully qualified instructors to educate the recruits. At present the D.C.'s are overloaded with District organisation work and have little time for recruit training. The examination proposed is a simple one and will be done at leisure with the aid of the training manual.

A list of special Reserve frequency allocations has been supplied by the Air Board. These include some handy frequencies outside the amateur spectrum, but mainly provide for the 75-80 metre band which, as we all know, is a shared band. With these definite frequency allotments, each Section will be assigned a working frequency, instead of being spread over a band, as in now the case. It is claimed that better and quicker working will result by this change and will eliminate long calling and searching.

A recent bulletin to D.C.'s from H.Q. dealt with the name that the Reserve has made for itself in various countries of the world. Receiving letters from overseas that offer us congratulations and a "pat on the back" are very gratifying. They only go to show that the services of the amateur as Service operators, throughout the world, are being sought after more and more. Having established a

lead on all other officially organised units, we have something to live up to and be proud of. The following letter speaks for itself and demonstrates how the good work and good fellowship in the Reserve has helped to put our show before the eyes of the world, so to speak.

4334 Westmount Avenue,
Westmount, P.Q.,
August 1st, 1934.

Pilot Officer R. H. Cunningham,
O.C., Royal Australian Air Force, W.R.,
1 Dalny Street, Malvern, S.E.4,
Victoria, Australia.

Dear Mr. Cunningham,—

I was fortunate in meeting G5TI, Bob Applin, operator of the A.S. Pencarrow, who was telling me of the very fine linking existing between the Australian amateurs and the Air Force. Inasmuch as myself and a few other amateurs have been trying to get our Government to co-operate with us in forming a network similar to that existing in your country and in England, I thought I could impose on your being an amateur and also prominently linked up with similar services, to get, if possible, some backing to our scheme.

Lieut.-Commander R. H. Mainguy, the Naval Intelligence Officer at Ottawa, is very keen on our forming the Wireless Reserve and linking up with the Navy, so are many other officers who have had the privilege of seeing the Royal Naval Wireless Auxiliary Reserve at work in England. I thought that if you, as O.C. of the R.A.A.F.W.R., could briefly cover the services that the amateurs have rendered to your unit, we might be able to push forward the negotiations now pending at Ottawa, and possibly hasten the formation of our Naval Wireless Reserve. The plans for this reserve are similar to those used in the formation of the corresponding unit in England.

If it would not be asking too much, I would greatly appreciate your reactions to this letter and anything you can do to assist us in proving to our Government the public-minded spirit of the amateurs will be greatly appreciated by all the amateurs in Canada.

Anticipating the pleasure of hearing from you, and with my 73, I am,

Yours very truly,
JOHN C. STADLER,

VE2AP.

SECOND DISTRICT NOTES.

By 2ZL

The last month has shown a very decided fall in message handling in VMB. It is also noticed that two of the highest scorers in last month's returns have not submitted a report this time. I refer to 2A1, who last month originated 181 messages, and 2A4, who also swelled the totals by adding 83 messages.

The grand total of messages last month amounted to well over a thousand, whilst this month only 292 messages were originated, and the average has dropped from 114 to a little over 41. Perhaps this state has been caused by the relay contest which was held during the last week in September. Members may have been saving their energy for that. However, VMB cannot always top the traffic score, and our last month's average per station of 114 is going to be very hard to beat.

One of the most enthusiastic members in VMB is 2B5, and it is with pleasure that I announce he is shortly to be known as 2Z3, and when he has "learned the ropes," it is hoped that he will accept the position of D.C. for VMB.

A new member who is showing promise is VK2YI, who was assigned the call of 2A3 on the resignation of VK2KB.

The two months' deferment of training to certain members will expire shortly, and they will then be expected to commence training or show good reason if further deferment is desired.

On Sunday, September 5, another test broadcast, similar to the one transmitted by 2Z1 the previous month, was sent by 2A2 to section VMB1. The message contained ten procedure and spelling errors, and the following reports were submitted by members of "A" section:—

2A4 detected all errors.

2A5 detected eight errors.

2A6 did not compete through bad interference.

TRAFFIC.

2A2, 116; 2A3, 1; 2A5, 24; 2A6, 28. Total, 169; average, 42.25.

2B2, 48; 2B8, 39; 2B5, 41. Total, 128; average, 40.75.

District average, 41.71.

THIRD DISTRICT NOTES.

By 3Z1.

This time next month all VMC stations will be in the thick of preparations for the Reserve Centenary Convention. 3Z1 and 3Z2 will be checking over the final details, whilst all country stations will be packing up for the trip to Melbourne. What a month October will be! Centenary DX Contest, W.I.A. Convention, and the Reserve Convention! Because of the Centenary Celebrations that will be on during the Convention period, it has been thought advisable to forego any ideas of a camp for training at Laverton until 1935. Country stations will want to be in the thick of the fun in Melbourne, instead of being 20 miles away, even admitting the interesting and instructive nature of a camp such as that proposed.

As the W.I.A. Convention runs from October 29 to November 3, our R.A.A.F.W.R. Convention will not really commence until November 4, although all stations will be down by October 28. During the Convention the Traffic Contest Trophy is to be presented. This will be included on our programme of activities. The actual dates of these will be

given in a special broadcast from 3Z1 on October 21, when all operators are asked to forward information as to the date of their arrival and their Melbourne address. All ordinary schedules will be suspended during October, because of the Centenary Contest, the above special schedule being the only one during the month.

Owing to 3Z1's illness, the metropolitan meeting has been cancelled, and the matter arranged for discussion will be held over until one of the Convention meetings, when a much more representative expression of opinion will be obtained. The matters for discussion this year are far more important and far-reaching in their possible results than any we have had during the six years VMC has been in existence.

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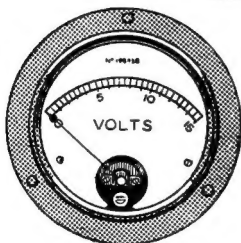
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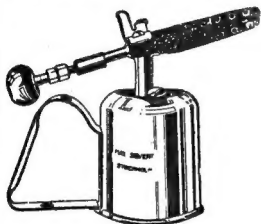
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